



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/586,662

07/19/2006

Mitsunari Kojima

050070-0111

7332

20277 7590 05/06/2009
MCDERMOTT WILL & EMERY LLP
600 13TH STREET, N.W.
WASHINGTON, DC 20005-3096

EXAMINER

MAHASE, PAMESHANAND

ART UNIT

PAPER NUMBER

2612

MAIL DATE

DELIVERY MODE

05/06/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/586,662	Applicant(s) KOJIMA ET AL.	
	Examiner PAMESHANAND MAHASE	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/9/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 and 3-7 are presented for examination.

Response to Amendment

2. Applicant's request filed on February 17, 2009 for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

3. Claim 2 has been cancelled by the applicant and claims 1 and 3-7 are submitted for examination.

4. The rejection for claim 1, 3, and 5-6 under 35 U.S.C. 102 (e) and the rejections for claims 4 and 7 under 35 U.S.C. 103 (a) have been withdrawn in light of the applicant's argument.

Drawings

5. The drawings are objected to under 37 CFR 1.84(o) because Figure 2 fails to show(s) any legends. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If

Art Unit: 2612

a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 3, and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gudat et al. [U.S. Patent 4,072,364] in view of Salmon et al. [U.S. Patent 5,825,338], and further in view of Sumida [U.S. Patent 4,287,503].

With regard to claim 1, Gudat et al. meets the limitation of a pulse generating device and pulse generator by disclosing a wheel speed sensor and shaping circuit (figure 1, items 2 and 21; column 2, lines 13-34). However, Gudat et al. fails to disclose a control device mounted on the vehicle.

In the same field of endeavor, Salmon et al. discloses a vehicle information display device that is able to display vehicle information such as the vehicle's speed, the

Art Unit: 2612

selected gear, engine temperature, etc. (figure 8b, item 144) It would be obvious to one with ordinary skill in the art to combine the wheel speed sensor, shaping circuit, and display device to create a vehicle display device that is able to display the vehicle's speed at any given time. However, the combination of Gudat et al. and Salmon et al. fails to disclose the use of a multiplexed line.

In the same field of endeavor, Sumida discloses a multiplexer that able to display selected items on a display apparatus (column 9, lines 16-30). It would be obvious to one with ordinary skill in the art to combine the wheel speed sensor, shaping circuit, display device, and multiplexer to create a vehicle information display device that is able to display the vehicle's speed as well as other pertinent vehicle information.

With regard to claim 3, Gudat et al. meets the limitation of a pulse generating device and pulse generator by disclosing a wheel speed sensor and shaping circuit (figure 1, items 2 and 21; column 2, lines 13-34). However, Gudat et al. fails to disclose a pulse signal indicating the running state of the vehicle.

In the same field of endeavor, Salmon et al. discloses a vehicle information display device that is able to display vehicle information such as the vehicle's speed, the selected gear, engine temperature, etc. (figure 8b, item 144) It would be obvious to one with ordinary skill in the art to combine the wheel speed sensor, shaping circuit, and display device to create a vehicle display device that is able to display the vehicle's speed at any given time.

With regard to claim 5, please refer to the rejection for claim 1 as the subject matter is addressed.

With regard to claim 6, please refer to the rejection for claim 3 as the subject matter is addressed.

7. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gudat et al. [U.S. Patent 4,072,364] in view of Salmon et al. [U.S. Patent 5,825,338], and in further view of Sumida [U.S. Patent 4,287,503] and Brooks et al. [U.S. Patent Publication 2003/0234550]

With regard to claim 4, With regard to claim 1, Gudat et al. meets the limitation of a pulse generating device and pulse generator by disclosing a wheel speed sensor and shaping circuit (figure 1, items 2 and 21; column 2, lines 13-34). However, Gudat et al. fails to disclose a control device mounted on the vehicle.

In the same field of endeavor, Salmon et al. discloses a vehicle information display device that is able to display vehicle information such as the vehicle's speed, the selected gear, engine temperature, etc. (figure 8b, item 144) It would be obvious to one with ordinary skill in the art to combine the wheel speed sensor, shaping circuit, and display device to create a vehicle display device that is able to display the vehicle's speed at any given time. However, the combination of Gudat et al. and Salmon et al. fails to disclose the information display being a navigation unit.

In the same field of endeavor, Brooks et al. discloses a display apparatus that is also a navigation device which contains a mobile productivity center that allows the driver to control his cellular phone, PDA, or other wireless paraphernalia (paragraph 0023). It would be obvious to one with ordinary skill in the art to combine the wheel

Art Unit: 2612

speed sensor, shaping circuit, display device, and navigation unit to create a control unit receive vehicle information and display it onto a screen allowing the driver, passengers, or users to be informed of the current operational status of the vehicle.

With regard to claim 7, please refer to the rejection for claim 4 as the subject matter is addressed.

Response to Arguments

8. Applicant's arguments, see paragraph 3, filed on February 17, 2009, with respect to the rejection(s) of claim(s) 1 under Steele [U.S. Patent Publication 2003/0130822] have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Gudat et al. [U.S. Patent 4,072,364] in view of Salmon et al. [U.S. Patent 5,825,338], and in further view of Sumida [U.S. Patent 4,287,503].

Prior Art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 4,835,467 to Gokhale discloses a magnetoresistive sensor monitors the passing of teeth on a rotating wheel and generates a DC biased speed signal. U.S. Patent 5,103,213 to Marsh et al. discloses a photo-optical coupler is connected to a shaft to provide a series of electronic pulses at a frequency corresponding to rotational velocity of the shaft. U.S. Patent 4,195,291 to Burks, Jr. discloses an electronic sensor for detecting motion and the rate of motion, particularly

Art Unit: 2612

rotative movement, utilizes digital control apparatus wherein pulses are transmitted to a digital counter at a rate proportional to the rate of rotation of the member being sensed, and the pulses are compared with a time reference signal to produce a control sequence for comparing the pulses to predetermined set point values wherein an alarm or control signal is produced if the rate of rotation of the member sensed deviates between predetermined set points.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAMESHANAND MAHASE whose telephone number is (571)270-7223. The examiner can normally be reached on Monday- Friday 8:00AM - 5:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PAMESHANAND MAHASE/

/Daniel Wu/

Supervisory Patent Examiner, Art Unit 2612